



Practitioner's Docket No.: 782\_202 DIV2

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the application of: Yuji HORI, Tomohiko SHIBATA, Osamu ODA and  
Mitsuhiro TANAKA

Ser. No.: 10/690,290

Art Unit: 2814

Filed: October 21, 2003

Examiner: Ngan V. Ngo

Conf. No.: 4572

For: A SEMICONDUCTOR ELEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

"EXPRESS MAIL" mailing label number EL 994436114 US.

I hereby certify that this paper or fee is being deposited on *April 7, 2004* with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*Elizabeth A. VanAntwerp*  
Elizabeth A. VanAntwerp

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.97(d)**

**TIME OF TRANSMITTAL OF ACCOMPANYING  
INFORMATION DISCLOSURE STATEMENT**

1. The information disclosure statement transmitted herewith is being filed *after*:

- (1) a final action under §1.113,
- (2) a notice of allowance under §1.311, or
- (3) an Office Action that closes prosecution,

but before, or simultaneously with, the payment of the issue fee.

**STATEMENT AND FEE**

2. In accordance with the requirements of 37 CFR §1.97(d):

- A. Accompanying this transmittal is a statement, as specified in 37 CFR §1.97(e).
- B. Applicant(s) submit(s) the submission fee set forth in §1.17(p) (\$180.00).

**METHOD OF PAYMENT OF FEE**

3. ☒ Attached is a check in the amount of \$180.00.  
☐ Charge Account 50-1446 in the amount of \_\_\_\_\_.  
A duplicate of this paper is attached.

If any additional fees are due, please charge Deposit Account 50-1446.

Respectfully submitted,



\_\_\_\_\_  
Stephen P. Burr  
Reg. No. 32,970

April 7, 2004

Date

SPB/eav

BURR & BROWN  
P.O. Box 7068  
Syracuse, NY 13261-7068

Customer No.: 025191  
Telephone: (315) 233-8300  
Facsimile: (315) 233-8320



Practitioner's Docket No.: 782\_202 DIV2

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of: - Yuji HORI, Tomohiko SHIBATA, Osamu ODA and  
Mitsuhiro TANAKA

Serial No.: 10/690,290

Art Unit: 2814

Filed: October 21, 2003

Examiner: Ngan V. Ngo

Confirmation No.: 4572

For: A SEMICONDUCTOR ELEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

"EXPRESS MAIL" mailing label number EL 994436114 US.

I hereby certify that this paper or fee is being deposited on *April 7, 2004* with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*Elizabeth A. VanAntwerp*  
Elizabeth A. VanAntwerp

**CERTIFICATION UNDER 37 CFR §1.97(e)**

Sir:

- ☒ Each item of information contained in the Information Disclosure Statement filed herewith was *first* cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

OR

- ☐ No item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Respectfully submitted,

*Stephen P. Burr*  
Stephen P. Burr  
Reg. No. 32,970

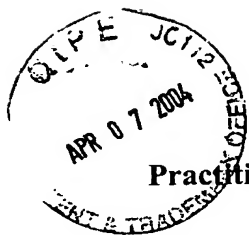
April 7, 2004

Date

SPB/eav

BURR & BROWN  
P.O. Box 7068  
Syracuse, NY 13261-7068

Customer No.: 025191  
Telephone: (315) 233-8300  
Facsimile: (315) 233-8320



Practitioner's Docket No.: 782\_202 DIV2

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the application of: Yuji HORI, Tomohiko SHIBATA, Osamu ODA and  
Mitsuhiro TANAKA

Ser. No.: 10/690,290

Art Unit: 2814

Filed: October 21, 2003

Examiner: Ngan V. Ngo

Confirmation No.: 4572

For: A SEMICONDUCTOR ELEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

"EXPRESS MAIL" mailing label number EL 994436114 US.

I hereby certify that this paper or fee is being deposited on *April 7, 2004* with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*Elizabeth A. VanAntwerp*  
Elizabeth A. VanAntwerp

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO-1449. Copies of each of the references listed on Form PTO-1449 are attached. In accordance with the Notice dated July 11, 2003 on the PTO website, we are not enclosing copies of any of the U.S. references listed on Form PTO-1449.

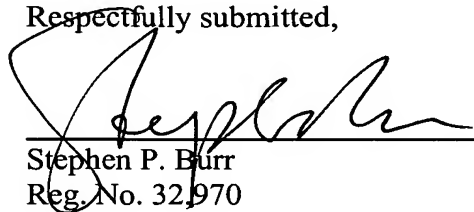
Also enclosed is a copy of a European Search Report bearing a mailing date of March 2, 2004 from a corresponding European patent application, and the U.S. PTO is directed thereto for a concise statement of possible relevance of the references cited therein.

The above information is presented so that the Patent and Trademark Office may, in the first instance, determine any materiality thereof to the claimed invention. It is respectfully requested that the information be expressly considered during the prosecution of

this application, and that these references be made of record therein and appear among the  
"References Cited" on any patent to issue therefrom.

The Commissioner is hereby authorized to charge any additional fees associated with  
this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

  
\_\_\_\_\_  
Stephen P. Burr  
Reg. No. 32,970

\_\_\_\_\_  
April 7, 2004  
Date

SPB/eav

BURR & BROWN  
P.O. Box 7068  
Syracuse, NY 13261-7068

Customer No.: 025191  
Telephone: (315) 233-8300  
Facsimile: (315) 233-8320

Form PTO-1449				<i>Complete if Known</i>	
US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE					
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				Application Number	10/690,290
				Filing Date	October 21, 2003
				First Named Inventor	Yuji HORI
				Art Unit - - - - -	2814
				Examiner Name	Ngan V. Ngo
				Confirmation No.	4572
Sheet	1	of	1	Attorney Docket No.	782_202 DIV2

#### U.S. PATENT DOCUMENTS

Exam. Initial		Document Number	Date	Name	Our Docket No.	Class	Sub Class	Filing Date
	AA*	5,990,495	11-23-1999	Ohba, Yasuo				
	AB*	6,064,082	05-16-2000	Kawai et al.				
	AC*	5,810,925	09-22-1998	Tadatomo et al.				

#### U.S. COPENDING APPLICATIONS

Exam. Initial		Application/ Publication Number	Filing/ Publication Date	Inventor Name	Our Docket No.	Class	Sub Class

#### FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub Class	Translation	Abstract
	AD	WO 98/35388	08-13-1998	US				

#### OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages etc.)

AE	M.A. Khan et al., "High Electron Mobility Transistor Based on a GaN-Al <sub>x</sub> /Ga <sub>1-x</sub> N Heterojunction," Applied Physics Letters, 30 August 1993, USA, Vol. 63, No. 9, pages 1214-1215, XP002269124
AF	P. Kung et al., "High Quality AlN and GaN Epilayers Grown on (pp.1) Sapphire, (100) and (111) Silicon Substrates," Applied Physics Letters, American Institute of Physics, NY, US, Vol. 66, No. 22, 29 May 1995, pages 2958-2960, XP000507525

Examiner:		Date Considered:	
-----------	--	------------------	--

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*In accordance with the Notice dated July 11, 2003 on the PTO website, we are not enclosing copies of any of the U.S. references listed above.